**Assessment-**

**Assignment One**

* **Podcasts in Science**
* **Blogs in Science**
* **(Live) Videos in Science**

|  |  |  |  |
| --- | --- | --- | --- |
| **Criteria** | **Bull’s Eye** | **Hit The Mark** | **Off Target** |
| Contributions to Discussion | * Routinely provides useful and thought-provoking ideas to discussion * Includes all criteria for initial discussion post | * Provides useful and thought-provoking ideas to discussion most of the time. * Includes most criteria for initial discussion post | * Rarely provides useful ideas when participating in the group discussion. * Includes some or few criteria for initial discussion post |
| Collaboration During Discussion | * Follows all discussion guidelines * Routinely provides useful and thought-provoking responses to others’ posts * A definite leader who contributes a lot of effort. (Ex. Responds to more posts than required) | * Follows most discussion guidelines * Provides useful and thought-provoking responses to others’ posts most of the time. * A satisfactory group member who does what is required. (Ex. Responds to the exact number of required posts) | * Many of the discussion guidelines are not followed * Rarely provides useful ideas when responding to others’ posts * May refuse to participate, or does less than what is required. |
| Assessment of the Use of Web 2.0 Tools | * Gives a well-detailed analysis of the benefits of using the given Web 2.0 tool in science * Analysis refers to the example of the tool’s use and an explanation is given | * Analysis of the benefits of using the given Web 2.0 tool in science has some details * No example of the tool’s use is referred to, or an explanation of the example is not provided | * Analysis of the benefits of using the given Web 2.0 tool in science is vague * No examples of the tool’s use are given |

**Assignment Two Grading Rubric**

* **Podcasts in Science**
* **Blogs in Science**

|  |  |  |  |
| --- | --- | --- | --- |
| **Criteria** | **Bull’s Eye** | **Hit The Mark** | **Off Target** |
| **Information Presented: Teaching Others Using Web 2.0 Tools** | * Content is well organized and related material is grouped together in the final product. A system of organization is clearly in place * All information is accurate * Covers topic in-depth with details and examples. Subject knowledge is excellent. | * Content is logically organized for the most part. A system of organization is in place, but a few pieces of information may be out of place * Most information is accurate, only 1 factual error * Includes essential knowledge about the topic. Subject knowledge appears to be fair. | * There was no clear or logical organizational structure, just a lot of random facts * Much information is inaccurate; there are more than 1 factual errors * Content is minimal, few or no examples are given |
| **Contributions to Discussion: Demonstrating Your Learning** | * Routinely provides useful and thought-provoking ideas to discussion about what your peers have presented * Includes all criteria for initial discussion post | * Provides useful and thought-provoking ideas to discussion about what your peers have presented most of the time. * Includes most criteria for initial discussion post | * Rarely provides useful ideas when participating in the group discussion about what your peers have presented. * Includes some or few criteria for initial discussion post |

**Learning Objectives:**

* Examine provided examples and describe how the science community is using different Web 2.0 tools.
* Analyze and explain the benefits of using Web 2.0 tools to spread and learn about scientific knowledge.
* Use various Web 2.0 tools to collaborate with their peers and teach them about a given science topic or concept.
* Use various Web 2.0 tools to collaborate with their peers and learn about a given science topic or concept.

**Podcasts**

BBC Science In Action

Science in Action BBC Podcasts is a program that covers the science issues of the week and discusses breaking science news from current science journals. Podcasts are updated weekly, episodes are available for 30 days, and podcasts are usually 20 minutes or less in duration.

**Assignment:**

* Pick one Podcast to listen to.
* Use the discussion space on this wiki page to answer the questions listed below.
* Pick 3-5 of your peers’ posts to respond to. Make sure to read and follow the discussion guidelines.

Podcast Discussion

1. Write a 1-paragraph description of the podcast that you listened to. What were the main ideas of the science topics that were discussed?
2. Focus on one science topic in the podcast. Using the Stephanie Harvey’s Making Tracks of Your Thinking graphic organizer, list 1:
   1. New word and its definition
   2. Wow! New discovery or understanding that you gained
   3. Question that you have after listening to the podcast
   4. Connection that you have to the topic (text/science class, self, world)
   5. Inference about the topic

**WMIS Science Podcasts**

Now it’s our turn to use this technology to spread scientific knowledge. For this assignment, we will be focusing on current events in science. Using various science news websites, you will develop a summary of the article, and turn it into a podcast, which will be shared with our class. By doing this, we can keep abreast about the latest science research and discoveries that impact our lives and the world we live in.

1. Each week, five students will be assigned to complete this learning activity. Your assigned week will be on a rotational basis. On your assigned week (which will be approximately once every six weeks), visit one of the websites listed in the Resources for Science Current Events Articles section below.
2. Choose an article of interest to read and summarize in your own words. Summaries should include:

* Title of the article
* Source of the article
* General topic of the article
* Who is the article about?
* What happened?
* When did it happen?
* Where did it happen?
* Why did it happen?
* How did it happen?
* The type of scientist(s) that is involved and what tools he/she may have used

1. Use the summary that you created to write a script. The script should be presented in story format so that it will be interesting to your readers.
2. Using Audacity, record your script. Make sure to save your file as a .wav file.
3. Upload your podcast to the podcast page on our class wiki. Start a discussion thread on the podcast page for your listeners to write responses.
4. On the weeks that you are not assigned to creating a science current events podcast, you are responsible for listening to all 5 of your classmates’ podcasts, and responding to them. Some ideas for appropriate responses include:

* A connection you have to the story
* A thought-provoking question (or answer to a classmate’s question)
* An inference you have about the event

Please remember to follow the discussion guidelines that are given in this class wiki.

**Our Science Blog**

Now it’s our turn to use this technology to spread scientific knowledge. For this assignment, we will be focusing on the human brain and exploring our various senses. However, because it is the end of the school year, our time is limited. Therefore, your assignment will be to experiment with learning or one of our senses in order to discover how it works, and share your findings with your peers through our WMIS Science 8 Blog. By doing this, we can build a collective body of knowledge, and learn from each other’s scientific investigations.

**Introduction**

The nature of science is making observations, gathering and sharing data, and solving problems. At the heart of the concept of Web 2.0 is obtaining, sharing, and using data and information, so for a scientist, this is a critical tool in his or her profession. I want you to learn how Web 2.0 technologies are being used in the science community to discuss and debate important science issues, and to share and learn about current scientific knowledge and discoveries.

As explained in the Scientific American article [Science 2.0: Great New Tool, or Great Risk?](http://www.scientificamerican.com/article.cfm?id=science-2-point-0-great-new-tool-or-great-risk), wikis, blogs, and other collaborative web technologies have the possibility of bringing to life a new era of science, due to the way these technologies are beginning to be used to conduct scientific explorations.

Throughout the school year, our class will use this Web 2.0 and Science Wiki as an online learning space to examine and analyze how Web 2.0 technologies are changing the way science is done, and to replicate these new methods of collaboration to share what we are learning about in our own science classroom.

Technologies we will be exploring:

* Blogs in Science
* Podcasts in Science

Assignment #1:

**Blogs**

ScienceBlogs is a blog space meant to drive science discussion about current science issues and new science discoveries. There are 80+ bloggers who contribute their insights to this science blog in order to stimulate discussion. Any reader can post replies to blogs, which makes for rich discussion and collaboration.

**Assignment**

* Explore the different areas of interest related to science listed by tab at the top of the page.
  + Last 24 Hrs, Life Science, Physical Science, Environment, Medicine, Brain & Behavior, Technology
* Pick one blog post and its replies to read.
* Use the discussion space on this wiki page to answer the questions listed below.
* Pick 3-5 of your peers’ posts to respond to. Make sure to read and follow the discussion guidelines.

Blog Discussion

1. Write a 1-paragraph description of a blog that you read. What were the main ideas of the science topic(s) that was discussed?
2. After reading this blog, use the Stephanie Harvey’s Making Tracks of Your Thinking graphic organizer to list 1:
   1. New word and its definition
   2. Wow! New discovery or understanding that you gained
   3. Question that you have after listening to the podcast
   4. Connection that you have to the topic (text/science class, self, world)
   5. Inference about the topic
3. What do you see as the biggest benefit for scientists to utilize blogs?

**Our Science Blog**

Now it’s our turn to use this technology to spread scientific knowledge. For this assignment, we will be focusing on the human brain and exploring our various senses. However, because it is the end of the school year, our time is limited. Therefore, your assignment will be to experiment with learning or one of our senses in order to discover how it works, and share your findings with your peers through our WMIS Science 8 Blog. By doing this, we can build a collective body of knowledge, and learn from each other’s scientific investigations.

Smell

Touch

Taste

Memory and Learning

**Skype**

[JASON Project](http://www.jason.org/public/whatis/start.aspx) and [Nautilus Live](http://www.nautiluslive.org/)

A great and easy way for scientists to share information and discoveries is through the use of video. JASON Project is a free program that links students to real science and scientists. On the homepage of their website, they have featured live events, such as a live question and answer session with NASA Engineer Kobie Boykins or Nautilus Expedition scientist Dr. Katy Croff Bell. On the [Nautilus Live](http://www.nautiluslive.org/) website, a website linked to the JASON Project, you can watch Dr. Robert Ballard, Dr. Katy Croff Bell, and their team as they continue on their live voyage that began this summer on the E/V Nautilus. The purpose of their exploration is to explore ancient history and learn more about the ocean as they map the sea floor, study underwater volcanoes, investigate unusual oceanic life forms, explore shipwrecks, and more.

**Assignment**

* Read about the current status of the Nautilus, and watch 10 minutes of live video.
* Under the videos tab, choose an archived Nautilus highlight video to watch. The [Sinop F Shipwreck Video Highlights](http://www.nautiluslive.org/video/2011/08/04/sinop-f-shipwreck-video-highlights) from August 4th, 2011 is a top recommendation of mine, but feel free to find something of interest.
* Use the discussion space on this wiki page to answer the questions listed below.
* Pick 3-5 of your peers’ posts to respond to. Make sure to read and follow the discussion guidelines.

Live Video Discussion

1. Write a 1-paragraph description of the current status of the Nautilus, and describe what was happening in the live video feed that you watched.
2. Write a 1-paragraph description of the highlight video that you watched. What events were taking place at that point in the expedition?
3. As you are watching the video, use the Stephanie Harvey’s Making Tracks of Your Thinking graphic organizer to list 1:
   1. New word and its definition
   2. Wow! New discovery or understanding that you experienced
   3. Question that you have after listening to the podcast
   4. Connection that you have to the topic (text/science class, self, world)
   5. Inference about the topic

* What do you see as the biggest benefit for scientists to utilize videos (and especially live videos)?

**Shark Expert Live!**

Now it’s our turn to use this technology to gain scientific knowledge. For this investigation, we will be connecting with an expert and learn about how experts study sharks in their ecosystems, and how humans impact their ecosystems. You will be meeting my best friend from high school, Julia Lampe, who is an intern with the RJ Dunlap Marine Conservation Program, which is a joint program with the Rosenstiel School of Marine and Atmospheric Sciences (RSMAS) and the Leonard and Jane Abess Center for Ecosystem Sciences and Policy at the University of Miami. She does most of her field-work out of RSMAS for lab work and in the Florida Keys, specifically at SeaBase (a boy scout camp) The scientists in her group go out on voyages about three times a month from Friday until Sunday to do their studies.

Using Skype, you will get to meet and speak with shark expert, Julia Lampe. In our class’ first Skype session with her, she will be providing you with information on:

* The history of sharks
* Different types of sharks
* How to catch sharks safely (without harming the shark or the person)
* Taking tissue and fin samples to study and test for chemical compounds
* How to satellite tag the sharks and for what purpose
* The importance of sharks in the ocean ecosystem
* Myths about sharks

During her presentation, you will be able to ask the questions that you come up with during a virtual expedition, or ones you develop as you listen to her.

In our class’ second Skype experience with Julia, she will be taking her laptop out on a voyage with her. You will be able to witness, in real time, what Julia does while on board, and will be able to make connections between what you observe and your first interview with her. At this time, you will be able to ask questions and get answers from her and the other crew-members.

Using this experience as a prompt, students will complete an inquiry based research project. They will have two choices:

* 1. Research and find answers or draw conclusions about one or more questions that they still have about sharks or a job as a marine biologist
  2. Research topic that has to do with ocean ecosystems

Julia stated that she would be available through further Skype contacts or email to give input to student research projects.

**Student Activities:**

* Watch the [R.J. Dunlap Marine Conservation Program video introduction](http://www.rjd.miami.edu/)
* Complete the [R.J. Dunlap Marine Conservation Virtual Expedition](http://www.rjd.miami.edu/learning-tools/virtual-expeditions/). As you are completing the virtual expedition, you will generate various levels of questions to ask a shark expert by using Marzano’s question stems on the Shark Expert Live Q-Chart (see Student Resources). You should develop one question per level, and should have at least one question per “stop” on the virtual expedition. Stops include:
* Equipment Checklist- learn about what types of gear they bring and why
* Departure and Deployment- see video about different equipment that is used, how the crew gets ready for the expedition, and how the bait is set for the sharks
* Tagging and Research- see video of sharks being pulled onto the boat, how they are studied, and for what purpose
* Photography

1. Shark Species- identify and gather more information about shark species that were seen on the virtual expedition.

**Discussion Guidelines**

Use a Web writing style that: (a) states your main point at the beginning of the message, (b) employs short sentences, (c) has a conversational or friendly tone, and (d) makes use of bullets or lists in longer messages to help readers to "see" ideas.

Be respectful of other's ideas, opinions, and beliefs. It is fine to disagree with someone, but please respect their right to think differently.

A message that demonstrates substance contributes to the understanding and application of ideas by doing one or more of the following:

* Reflection about meaning: Describe thoughtfully what something means or new insights it provides, or raise a question as a seed for clarification or further discussion.
* Analysis: Discuss relevant themes, concepts, main ideas, components, or relationships among ideas. Or, identify hidden assumptions or fallacies in reasoning.
* Elaboration: Build on ideas of others or ideas found in the readings by adding details, examples, a different viewpoint, or other relevant information.
* Application: Provide examples of how principles or concepts can be applied to actual situations, or discuss the implications of theory for practice.
* Synthesis: Integrate multiple views to provide a summary, a new perspective, or a creative re-fashioning of ideas.
* Evaluation: Assess the accuracy, reasonableness, or quality of ideas.

Spell-check and proofread your messages. Some prefer to write their messages in a word processor and then cut and past them into the discussion.

Avoid using all caps. IT SEEMS LIKE SHOUTING!

Use emoticons (smilies) if you want to convey emotion, especially if you want people to know that you are using humor or joking:

* :-)      happy, humorous
* :-(      unhappy
* :-0      shocked
* ;-)      winking
* :-}      wry, ironic

All discussion messages should be directly related to the stated discussion. If it does not help achieve the learning goals for the discussion, then do not type it.

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What’s Left To Do:

* Create final assignments for all 3 Web 3.0 tools
* Create grading rubric for assignments
* Determine final Web 2.0 tool that my students will focus on and create initial assignment for that technology
* Pick a podcasting site for students to use to create their own for our classroom, and learn how to upload it onto our class wiki

Hello. This is Ms. Bauhs. This podcast is going to outline the directions for creating your own podcast about science current events.

First, you will want to visit one of the websites listed on this wiki page in order to see what’s new in the science community. Choose a story of interest to read. After you’ve read it, create a summary of the article in your own words. Your summary should include:

* The title and source of the article
* General topic of the article
* Who or what the article is about
* What happened?
* When it happened
* Where it happened
* Why it happened?
* How it happened?
* You should also talk about the type of scientist(s) that is involved and what tools he/she may have used

After you have summarized your article, you should turn your summary into a storylike script. This will make your podcast more interesting to your listeners. The last step is to record your script using Audacity, and upload it to our class wiki.

Finally, when you are listening and responding to your classmate’s current event podcasts, some appropriate responses might include

* a connection that you have with the story
* a question that you have
* or an inference that you have in regards to the current event

Remember to follow the discussion guidelines listed on our class wiki.

Thank you for listening to this podcast. If you have any further questions, please do not hesitate to ask.